

REMARKS

In connection with the above identified Request for Continued Examination, Applicant submits the enclosed Preliminary Amendment.

In view of the amendments herein to the claims and the following representations, reconsideration of the application in its present form is respectfully requested.

With respect to the prior rejection of the claims under 35 U.S.C. 103 as being unpatentable over the combination of U.S. Patent No. 5,446,617 of Blocher and the CO-NECTIC publication reference, Applicant submits that the Claims are now allowable.

First, Applicant submits new independent claims 17 and 21 to add the limitation that the ballast case shields humans from the magnetic component of electromagnetic fields, as previously noted on page 5 and 6 of Applicant's prior 132 Declaration dated July 29, 1999.

Applicant submits a new 132 Declaration stating that the Board of Patent Appeals and Interferences was incorrect in stating that Blocher '617 shields from the magnetic component of electromagnetic fields. In fact, Blocher '617 only shields electromagnetic interference which is not the same attribute as shielding the magnetic component of electromagnetic fields.

In addition, the amendment herein limits the material of the ballast case of Claim 17 to a soft ferromagnetic material, which excludes aluminum noted in U.S. Patent No. 5,446,617 of Blocher previously cited by the Examiner and the Board of Patent Appeals and Interferences. In Claim 21, the material for the liner of the ballast case is limited to a soft ferromagnetic material..

In view of the amendment herein with new Claims 17-26 it is respectfully submitted that the Claims 17-26 more particularly point out and distinctly claim the present invention.

With respect to the previous rejection under 35 USC 103 based on obviousness, it is respectfully requested that the rejection of these claims under 35 U.S.C. 103 as being unpatentable over the combination of U.S. Patent No. 5,446,617 of Blocher in view of the CO-NECTIC publication reference be now withdrawn.

Unlike amended Claims 1 and 2, Blocker '617 differs in that it uses an aluminum case, which is a poor shield for the magnetic component of electro magnetic fields, in a ballast enclosure that electrically grounds the enclosure with grounding wires. The fact that Blocker '617 may describe an enclosure which limits electromagnetic interference (EMI) does not mean that it substantially eliminates the magnetic component of electromagnetic fields.

For the following reasons, Applicant submits that the application is in condition for allowance, which allowance is earnestly solicited.

**Introduction:**

The present invention teaches the usage of ferromagnetic materials, and particularly CO-NETIC alloys in connection with magnetically-shielded fluorescent lamp ballast cases. As noted by applicant, such materials were previously overlooked by thousands of lighting manufacturers for such purpose, and such materials provide significant benefits to the user. Specifically, whereas the prior art only reduces the electromagnetic interference (EMI), the present invention reduces the magnetic component of the electromagnetic field, providing significant benefits that are not provided by the prior art. Moreover, the present invention excludes the usage of aluminum, which is relied upon by the closest prior art but considered inferior to CO-NETIC alloys for the purposes of the invention.

**New Use For Existing Material:**

CO-NETIC materials are ordinarily utilized in connection with devices such as computers (i.e. Patent 5,336,848 to Katz), digitizer tablets (i.e. Patent 5,357,061

to Crutchfield), and microscopes and sensitive laboratory equipment. (per CO-NETIC brochure cited by Examiner).

Prior to applicant's research and development, there has been no suggestion to utilize CO-NETIC alloys in connection with fluorescent lamp ballasts. Although item "III" paragraph 7 of the CO-NETIC brochure includes a reference to "intolerable magnetic noise" associated with fluorescent lighting, the reference contains no express motivation to utilize CO-NETIC in connection with magnetically-shielded fluorescent lamp ballast cases.

Furthermore, it has long been held that a new use for an existing material may be patentable. Such is particularly the case where the new usage provides improved and unexpected results. For the purposes of example, in *Leesona Corp. v. United States*, 530 F.2d 896 (Ct.Cl. 1976), the Court stated that:

"Based on these differences in structure, function, and result, defendant's contention that the use of Teflon is a mere substitution of materials in the Berl and Winckler electrodes cannot be accepted. It ignores the fact that not only is the material not suggested by any prior art but that neither Berl nor Winckler suggests using binder particles in a mixture with catalyst particles. Thus, not only is a different material used, it is being used in a

different form to produce a different structure, with significantly improved and unexpected results. Hence, **more than a mere substitution is involved.**" *Carbide & Carbon Chemicals Corp. v. Coe*, 69 App.D.C. 372, 102 F.2d 236, 241 (1938); *Allen Filter Co. v. Star Metal Manufacturing Co.*, 40 F.2d 252 (3d Cir. 1930), *cert. denied*, 282 U.S. 848, 51 S.Ct. 27, 75 L.Ed. 752. (emphasis added)

In the present case, as in *Carbide & Carbon Chemicals Corp*, more than a mere substitution is involved, as there was no suggestion for such substitution in any prior art, and the change of materials significantly improved the resulting product.

[See also *Hybritech Inc. v. Monoclonal Antibodies, Inc*, 802 F.2d 1367 (Fed. Cir. 1986), where the Federal Circuit stated that: "Focusing on the obviousness of substitutions and differences instead of on the invention as a whole, as the district court did in frequently describing the claimed invention as the mere substitution of monoclonal for polyclonal antibodies in a sandwich assay, was a legally improper way to simplify the difficult determination of obviousness. See generally *Hodosh v. Block Drug Co.* 786 F.2d 1136, 229 USPQ 182 (Fed.Cir. 1986)."] (emphasis added)]

**Praise By Those Skilled In The Art:**

Moreover, the fact that the present invention was not obvious to those skilled in the art is evidenced by the previously-filed Declaration of Myron Kahn. Specifically, Mr. Kahn, a manufacturer of diffusers for lighting fixtures, stated that "I have read Mr. Karpen's specification for his invention, and he has come up with a very important development, one that has been overlooked by thousands of lighting practitioners."

It is important to note that praise by those skilled in the art has been recognized by the Federal Circuit as an additional factor of non-obviousness. *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F3d 1349, 1356-57 (Fed Cir 2000); *Allen Archery, Inc. v. Browning Mfg. Co.*, 819 F.2d 1087, 1092, 2 USPQ2d 1490, 1493 (Fed. Cir. 1987).

It has also been held that the testimony of one "who has spent most of his adult life in the field is most significant on issue of obviousness, where his testimony demonstrates nonobvious nature of patentee's invention" *Woodstream Corp. v Herter's, Inc.* 446 F2d 1143 (CA8 Minn 1971).

#### **Skepticism By Experts:**

As noted on pages 10-11 of applicant's brief, the present invention and related literature were also

considered controversial by some skilled in the art. It has long been held that initial skepticism by experts is a factor of non-obviousness, per the following: "The skepticism of an expert, expressed before these inventors proved him wrong, is entitled to fair evidentiary weight, . . . as are the five to six years of research that preceded the claimed invention." *In re Dow Chemical Co.*, 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988); *Burlington Industries Inc. v. Quigg*, 822 F.2d 1581, 3 USPQ2d 1436 (Fed. Cir. 1987) (testimony that the invention met with initial incredulity and skepticism of experts was sufficient to rebut the prima facie case of obviousness based on the prior art). [See also *Environmental Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 698, 218 USPQ 865, 869 (Fed. Cir. 1983) and *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 483-484 (1966)].

**Long-Felt But Unsolved Need:**

Applicant has achieved several other factors of non-obviousness, pursuant to *Graham v. John Deere Co.* U.S. 1, 148 USPQ 459 (1966). It has been held that the "signposts of non-obviousness include the long felt need for such a device which was not theretofore available, its fairly instant commercial success, copying by the defendants, and a new, useful and unique permutation of various prior art combined into a subject matter as a whole which was previously

unobvious." *Maclaren v. B-I-W Group Inc.*, 401 F. Supp. 283, 187 USPQ 345 (S.D.N.Y. 1975).

In the present case, the prior art's failure to solve the problem establishes both a pressing need for such a solution, as well as the fact that the solution was not obvious to those skilled in the art. For instance, the Blocher reference relies upon the usage of inferior aluminum, and fails to eliminate the magnetic component of the electromagnetic field

An additional element of non-obviousness lies in the fact that CO-NETIC material has existed for an extended period of time, without the industry incorporating same into fluorescent lighting ballasts. For example, trademark application number 71696902 for the mark "CO-NETIC SHIELDING" was filed on October 21, 1955, nearly fifty years before applicant's incorporation of CO-NETIC materials into the fluorescent lighting ballast. Moreover, the Blocher patent was filed in 1994, nearly four years before the filing of patent application number 09/096,999 by the present applicant. It has been held that "although mere age of prior art is not enough to establish unobviousness, unobviousness over such art is shown, where, if applicant's successful solution has been obvious, pressure of circumstances in highly competitive steel industry would

prompted it long ago." *Tietig v. Ladd*, 228 F Supp 637, 141 USPQ 372 (DC Dt Ct 1964)

**Perception of Need:**

Moreover, it must be considered that applicant *perceived a problem* in the prior art that those skilled in the art failed to perceive. Specifically, although users had experienced detriments associated with magnetic interference from fluorescent lighting for many years, applicant was a pioneer in detecting the problem and seeking solutions thereto, as evidenced by the multiple academic articles written by applicant and cited in applicant's brief.

Myron Kahn, a manufacturer of diffusers for lighting fixtures, stated in his previously-filed Declaration that "in regard to the above-referenced U.S. Patent Application, in the almost 50 years I have been in the lighting industry, no one ever mentioned to me the problems of electromagnetic fields from fluorescent lighting."

The Declarant Myron Kahn has been an eminent expert in the fluorescent lighting industry for over 40 years.

The substance of Myron Kahn's Declaration under Rule 132 is that the present invention demonstrates unexpected beneficial results overlooked by thousands of persons skilled in the fluorescent light field. He attests to the

fact that Applicant's research is persuasive in explaining the damaging effects of electromagnetism from fluorescent lamp ballasts upon humans, and that Applicant solves the problems of visual discomfort, dry eye and other visual problems associated with this electromagnetism.

He goes on to state that shielding these fluorescent lamp ballasts will greatly reduce or eliminate these adverse effects of the electromagnetic components.

Since Myron Kahn has attested to the fact that Applicant's subject matter provides superior unexpected results in solving a long-felt need in the lighting industry, Applicant's claims are not obvious.

In this regard it has been held that "patentable invention may lie in discovery of source of problem even though remedy may be obvious once source of problem is identified" *Application of Sponnoble*, 405 F2d 578, 160 USPQ 237 (Cust & Pat App); and that "in absence of evidence that person of ordinary skill in art would have expected problem in insulated-gate field-effect transistor to exist at all, it is improper to conclude that invention solving problem would have been obvious" *In re Nomiya, Kohisa & Matsumura*, 184 USPQ 607 (Cust & Pat App). [See also *Re Peehs & Humner*, 204 USPQ 835 (Cust & Pat App)].

**Conclusion:**

Based on the foregoing, applicant can argue non-obviousness of a new use of existing materials due to a long-felt but unsolved need, skepticism of experts, praise from those skilled in the art, and failure of others to provide an effective solution over an extended period of time.

Applicant submits that the application is in condition for allowance, which allowance is earnestly solicited.

Respectfully submitted,

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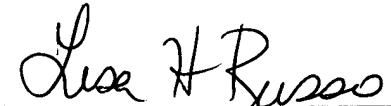
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